ABSTRACT OF THE DISCLOSURE

In one of its aspects, the present invention relates to foamed isocyanate-based polymer derived from a reaction mixture comprising an isocyanate, an active hydrogen-containing compound, a dendritic macromolecule and a blowing agent; wherein at least a 15% by weight of the dendritic macromolecule may be mixed with a polyether polyol having an OH number less than about 40 mg KOH/g to form a stable liquid at 23°C. The dendritic macromolecule confers advantageous load building characteristics to the foamed isocyanate-based polymer and may be used to partially or fully displace the use of conventional copolymer polyols used. A process for production of a foam isocyanate-based polymer and a process for conferring loading building properties to a foamed isocyanate-based polymer are also described.